

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application Cropper, Dean E.  
of:

Serial No.: 10/796,171

Art Unit: 3764

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Examiner: Huong Q. Pham

For: Knee Orthosis and Orthotic  
Method

Attorney Docket No.: CRP002

**DECLARATION UNDER 37 C.F.R. § 1.132**

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I, Christopher Powers, Ph.D., PT, hereby declare that:

1. I am a citizen of the United States of America, residing at 33 Privateer, #5, Marina Del Rey, CA 90292.
2. I am an Associate Professor in the Department of Biokinesiology & Physical Therapy, and Co-Director of the MBRL at the University of Southern California ("USC"). I also have joint appointments in the Departments of Radiology and Orthopaedic Surgery within the Keck School of Medicine. My primary teaching responsibilities include the areas of biomechanics and the mechanics of human gait. I received a Bachelors degree in Physical Education from the University of California, Santa Barbara in 1984, a Masters degree in Physical Therapy from Columbia University in 1987, and a Ph.D. in Biokinesiology in 1996 from USC. I completed my post-doctoral training at the Orthopaedic Biomechanics Laboratory, University of California, Irvine.

3. I study the biomechanical aspects of human movement. More specifically, my research and publications are concerned with the kinematic, kinetic and muscular actions associated with human movement, the pathomechanics of orthopedic disabilities and issues related to rehabilitation of the musculoskeletal system. I have published over 60 peer-reviewed articles and 100 abstracts and have received several research awards from the American Physical Therapy Association, including the Rose Excellence in Research Award from the Orthopaedic Section, the Eugene Michels New Investigator Award, and the Dorothy Briggs Scientific Inquiry Award.

4. I am a Fellow of the American College of Sports Medicine and a member of the American Physical Therapy Association (Orthopaedic and Research sections), American Society for Biomechanics, American Society for Testing and Measures, and the North American Society for Gait and Clinical Movement Analysis. In addition, I serve on several editorial boards including the *Journal of Applied Biomechanics*, *Journal of Orthopaedic and Sports Physical Therapy*, *Physical Therapy*, *Foot & Ankle International*, and the *Journal of Athletic Training*. I currently serve as Vice President of the California Chapter and Section on Research of the American Physical Therapy Association, and am Chair of the Research Subcommittee of ASTM F-13.

5. I have no financial stake, or expectation of a financial stake, in the above-identified United States patent application, the invention to which it pertains, or in any entity licensed to, or having an expectation to, practice it.

6. I express this my expert opinion regarding the teachings of United States patents numbers 4,445,505 issued to Labour ("Labour"); 3,804,084 issued to Lehman ("Lehman"); 2,858,540 issued to Morrison ("Morrison"); and 5,649,901 issued to DiPietro et al. ("DiPietro"), which I have read and considered in their entirety, without any compensation therefor apart from compensation strictly for my time spent as an objective expert.

7. In contrast to the above-identified claimed invention, a disclosure of which was presented to me as United States application Publication No. 2005/0203455, Labour at best only possibly contains a concentrated inward tracking strap or member for a patella. While it

may centralize the patella, *i.e.*, by medial side-to-side adjustment, through edge 54 of pad 36, it does not focus on inward tracking, especially in view of opening 30, which “relieves pressure against the patella[.]” Viewed in its totality, Labour also fails to show that the natural result of its devices’ operations as taught therein would be application of concentrated inward pressure onto a patella. What is more, as it was understood prior to April 2004, a person who has lesser skill in this art than I currently have would definitely not have viewed Labour as having or suggesting a concentrated inward tracking strap or member.

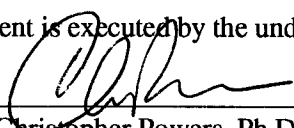
8. In contrast to the above-identified claimed invention, a disclosure of which was presented to me as United States application Publication No. 2005/0203455, Lehman at best only probably contains a concentrated inward tracking strap or member for a patella. While it may teach that the device provides the patella a degree of superimposed support, relatively thick felt 14, stays 52 and 54, and strips 60 and 62 surround cut outs 30 and 32 to define patella opening 36 such that support is not concentrated inwardly on the patella. Indeed, this configuration provides “overall even support to the wearer’s knee[.]” Viewed in its totality, Lehman also fails to show that the natural result of its devices’ operations as taught therein would be application of concentrated inward pressure onto a patella. What is more, as it was understood prior to April 2004, a person who has lesser skill in this art than I currently have would probably not have viewed Lehman as having or suggesting a concentrated inward tracking strap or member.

9. In contrast to the above-identified claimed invention, a disclosure of which was presented to me as United States application Publication No. 2005/0203455, Morrison at best only possibly contains a concentrated inward tracking strap or member for a patella. Morrison teaches a protector pad that protects the entire knee joint with a resilient shield. Its bands 14 and raised middle portions 15 distribute pressure across foam rubber pad 11 and fabric cover 10. Viewed in its totality, Morrison also fails to show that the natural result of its devices’ operations as taught therein would be application of concentrated inward pressure onto a patella, especially absent some untaught optimization of these devices’ configurations or attachments. What is more, as it was understood prior to April 2004, a person who has lesser skill in this art than I currently have would probably not have viewed Morrison as having or suggesting a concentrated inward tracking strap or member.

10. In contrast to the above-identified claimed invention, a disclosure of which was presented to me as United States application Publication No. 2005/0203455, DiPietro at best only probably contains a concentrated inward tracking strap or member for a patella. It seems that the patella lies vertically centered between respective attachment points of upper and lower straps 36 and 38, which distribute pressure across the entire joint through heavy duty elastic bandage 12 by their use. Viewed in its totality, DiPietro also fails to show that the natural result of its devices' operations as taught therein would be application of concentrated inward pressure onto a patella. What is more, as it was understood prior to April 2004, a person who has lesser skill in this art than I currently have would probably not have viewed DiPietro as having or suggesting a concentrated inward tracking strap or member.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing thereon.

This statement is executed by the undersigned on the date opposite his signature:

Signature:  Date: June 1, 2007  
Christopher Powers, Ph.D., PT